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OM protein - protein search, using sw model

Run on: April 27, 2003, 08:52:12 ; Search time 21 seconds

(without alignments)
408,838 Million cell updates/sec

Title: US-09-836-960-5

Perfect score: 1097

Sequence: 1 MYSAPSACCTCLHFLLCF.....PKYTVTKRSRRIRPTHPA 207

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 112892 seqs, 41476328 residues

Total number of hits satisfying chosen parameters: 112892

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Maximum Match 0%

Listing first 45 summaries

Database: SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1097	100.0	207	FGFL_HUMAN	076093 homo sapien
2	1081	98.5	207	FGFL_MOUSE	089101 mus musculus
3	1081	98.5	207	FGFL_RAT	088182 rattus norv
4	574	52.3	214	FGF8_CHICK	090722 gallus gall
5	571	52.1	216	FGFR_HUMAN	060258 homo sapien
6	566	51.6	216	FGFR_MOUSE	070627 mus musculus
7	566	51.6	233	FGFR_HUMAN	P55075 homo sapien
8	554.5	50.5	268	FGF8_MOUSE	P37237 mus musculus
9	194	17.7	194	FGF7_HUMAN	P21781 homo sapien
10	193	17.6	194	FGF7_MOUSE	P36363 mus musculus
11	193	17.6	194	FGF7_SHEEP	P48808 ovis aries
12	192	17.5	194	FGF7_CANFRA	E79150 canis famill
13	190	17.3	425	L736_CAEEL	Q11184 caenorhabdi
14	188.5	17.2	194	FGF7_PIG	Q9n198 sus scrofa
15	187	17.0	194	FGF7_RAT	Q02195 rattus norv
16	178	16.2	209	FGFA_MOUSE	O35565 mus musculus
17	172	15.7	194	FGFA_CHICK	P48804 gallus gall
18	172	15.7	208	FGFR_HUMAN	P31371 homo sapien
19	172	15.7	208	FGFR_MOUSE	P54130 mus musculus
20	172	15.7	208	FGFR_RAT	P36360 rattus norv
21	171.5	15.6	155	FGFL_MOUSE	P10935 mus musculus
22	170.5	15.5	206	FGFA_HUMAN	P08620 homo sapien
23	169.5	15.5	155	FGFL_MESAU	P34004 mesocricetu
24	168.5	15.4	192	FGFL_PIG	P20002 sus scrofa
25	167.5	15.3	192	FGFR_XENLA	P48806 xenopus lae
26	166.5	15.2	155	FGFL_HUMAN	P05220 homo sapien
27	165	15.0	209	FGP9_XENLA	Q91875 xenopus lae
28	164	14.9	211	FGFR_HUMAN	O9n935 homo sapien
29	160	14.6	208	FGFA_HUMAN	O15520 homo sapien
30	159.5	14.5	155	FGFL_BOVIN	P03968 bos taurus
31	159.5	14.5	158	FGF2_CHICK	P48800 gallus gall
32	159.5	14.5	207	FGFR_RAT	O54769 rattus norv
33	159	14.5	187	FGFA_XENLA	P48805 xenopus lae

ALIGNMENTS

RESULT 1	FGFL_HUMAN	STANDARD;	PRT;	207 AA.
AC	076093;			
DT	15-JUL-1999 (Rel. 38, Created)			
DT	15-JUL-1999 (Rel. 38, Last sequence update)			
DT	15-JUN-2002 (Rel. 41, Last annotation update)			
DE	Fibroblast growth factor-18 precursor (FGF-18) (zFGF5).			
GN	FGF18.			
OS	Homo sapiens (Human).			
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.			
OX	NCBI_Taxid=9606;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RX	MEDLINE=98414622; PubMed=9742123;			
RA	Hu M.C.-T., Qiu W.R., Wang Y.-P., Hill D., Ring B.D., Scully S.,			
RA	Bolon B., Derose W., Luethy R., Simonet W.S., Arakawa T.,			
RA	Danilenko D.M.;			
RT	"FGF-18, a novel member of the fibroblast growth factor family,			
RT	stimulates hepatic and intestinal proliferation.";			
RL	Mol. Cell. Biol. 18:6063-6074(1998).			
RN	[2]			
RP	SEQUENCE FROM N.A.			
RC	TISSUE=Lung;			
RX	MEDLINE=98325019; PubMed=9660775;			
RA	Obayashi N., Hoshikawa M., Kimura S., Yamasaki M., Fukui S., Ito N.;			
RT	"Structure and expression of the mRNA encoding a novel fibroblast			
RT	growth factor, FGF-18.";			
RL	J. Biol. Chem. 273:18161-18164(1998).			
RN	[3]			
RP	SEQUENCE FROM N.A.			
RA	Delisher T., Conklin D., Raymond F., Bukowski T., Hoiderman S.,			
RA	Hansen B., Sheppard P., O'Hara P.;			
RT	"Homo sapiens homologue of fibroblast growth factor.";			
RT	Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.			
RN	[4]			
RP	SEQUENCE FROM N.A.			
RC	TISSUE=Ovary;			
RA	Straussberg R.;			
RL	Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.			
CC	- FUNCTION: STIMULATES HEPATIC AND INTESTINAL PROLIFERATION.			
CC	- SUBCELLULAR LOCATION: Secreted (By similarity).			
CC	- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.			
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CC	entities requires a license agreement (See http://www.isb-sib.ch/announce/			
CC	or send an email to license@isb-sib.ch).			
CC	-----			
DR	EMBL; AF075292; AAC62240.1; -			P70492 rattus norv
DR	EMBL; AB007422; BAA31986.1; -			P03969 bos taurus
DR	EMBL; AF211188; AAF22977.1; -			P20003 ovis aries

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DR EMBL: BC006245; AAH06245.1; -
DR HSSP: P31371; 1G82.
DR Genew; HGNC:3674; FGF18.
DR MIM; 603726; -
DR InterPro; IPR002209; HB/F-growthfact.
DR InterPro; IPR002348; IL1_HBGF.
DR Pfam; PF00167; FGF.1.
DR PRINTS; PR00262; IL1HBGF.
DR PRODOM; PD000831; HB/F-growthfact; 1.
DR SMART; SM00442; FGF.1.
DR PROSITE; PS00247; HBGF_FGF.1.
DR Growth factor; Signal; Glycoprotein.
KW SIGNAL.
FT CHAIN 1 27 FIBROBLAST GROWTH FACTOR-18.
FT CARBOHYD 39 39 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 207 AA; 23989 MW; 57F69E7B30181500 CRC64;

Query Match 100.0%; Score 1097; DB 1; Length 207;
Best Local Similarity 100.0%; Pred. No.3.9e-96;
Matches 207; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MYSAPSACTCLCHFLLLCFQOVYVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
DB 1 MYSAPSACTCLCHFLLLCFQOVYVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
QY 61 TSGKHIOVIGRRISARGEDGDKYAQLLVETDFGSOVRIGKETEFLCMNRKGLVGR 120
DB 61 TSGKHIOVIGRRISARGEDGDKYAQLLVETDFGSOVRIGKETEFLCMNRKGLVGR 120
QY 121 DGTSGKECVFIEKYLENNYATLMSAKYSGMYVGFTKGRPRKGPRTRENQDVHFMKRYPK 180
DB 121 DGTSGKECVFIEKYLENNYATLMSAKYSGMYVGFTKGRPRKGPRTRENQDVHFMKRYPK 180
QY 181 GOPELOKPKFYTTYTKRSRRIRPTHPA 207
DB 181 GOPELOKPKFYTTYTKRSRRIRPTHPA 207

RESULT 2
FGFL_MOUSE
ID FGFL_MOUSE STANDARD; PRT; 207 AA.
AC O89101;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Fibroblast growth factor-18 precursor (FGF-18) (zFGF5).
GN FGF18.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_Taxid=10090;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE-98414622; PubMed-9742123;
RA Hu M.C.-T., Qiu W.R., Wang Y.-P., Hill D., Ring B.D., Scully S.,
RA Bolton B., Derose M., Luehly R., Simonet W.S., Atakawa T.,
RA Danilenko D.M.;
RT "FGF-18, a novel member of the fibroblast growth factor family,
RT stimulates hepatic and intestinal proliferation.";
RL Mol. Cell. Biol. 18:6063-6074(1998).
RN [2]
RP SEQUENCE FROM N.A.
RX TISSUE-Embryo;
RC MEDLINE-98325019; PubMed-9660775;
RA Ohbayashi N., Hoshikawa M., Kimura S., Yamasaki M., Fukui S., Ito N.;
RT "Structure and expression of the mRNA encoding a novel fibroblast
RT growth factor, FGF-18.";
RL J. Biol. Chem. 273:18161-18164(1998).
RN [3]
RP SEQUENCE FROM N.A.
RX Deisher T., Conklin D., Raymond F., Bukowski T., Holderman S.,
RA Hansen B., Sheppard P., O'Hara P.;

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RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
CC - FUNCTION: STIMULATES HEPATIC AND INTESTINAL PROLIFERATION.
CC - SUBCELLULAR LOCATION: Secreted (By similarity).
CC - SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL: AF075291; AAC62239.1; -
DR EMBL: AB004639; BAA31980.1; -
DR EMBL: AF211187; AAF22976.1; -
DR HSSP: P31371; 1G82.
DR MGD; MGI:1277980; Fgf18.
DR InterPro; IPR002209; HB/F-growthfact.
DR InterPro; IPR002348; IL1_HBGF.
DR Pfam; PF00167; FGF.1.
DR PRINTS; PR00262; IL1HBGF.
DR PRODOM; PD000831; HB/F-growthfact; 1.
DR SMART; SM00442; FGF.1.
DR PROSITE; PS00247; HBGF_FGF.1.
DR Growth factor; Signal; Glycoprotein.
KW SIGNAL.
FT CHAIN 1 27 FIBROBLAST GROWTH FACTOR-18.
FT CARBOHYD 39 39 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 207 AA; 23920 MW; CD5F987B271628B8 CRC64;

Query Match 98.5%; Score 1081; DB 1; Length 207;
Best Local Similarity 99.0%; Pred. No.1.3e-94;
Matches 204; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYSAPSACTCLCHFLLLCFQOVYVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
DB 1 MYSAPSACTCLCHFLLLCFQOVYVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
QY 61 TSGKHIOVIGRRISARGEDGDKYAQLLVETDFGSOVRIGKETEFLCMNRKGLVGR 120
DB 61 TSGKHIOVIGRRISARGEDGDKYAQLLVETDFGSOVRIGKETEFLCMNRKGLVGR 120
QY 121 DGTSGKECVFIEKYLENNYATLMSAKYSGMYVGFTKGRPRKGPRTRENQDVHFMKRYPK 180
DB 121 DGTSGKECVFIEKYLENNYATLMSAKYSGMYVGFTKGRPRKGPRTRENQDVHFMKRYPK 180
QY 181 GOPELOKPKFYTTYTKRSRRIRPTHP 206
DB 181 GOPELOKPKFYTTYTKRSRRIRPTHP 206

RESULT 3
FGFL_RAT
ID FGFL_RAT STANDARD; PRT; 207 AA.
AC O88182;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Fibroblast growth factor-18 precursor (FGF-18).
GN FGF18.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_Taxid=10116;
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN-Wistar; TISSUE-Embryo;
RC MEDLINE-98325019; PubMed-9660775;
RA Ohbayashi N., Hoshikawa M., Kimura S., Yamasaki M., Fukui S., Ito N.;
RT "Structure and expression of the mRNA encoding a novel fibroblast
RT growth factor, FGF-18.";

```

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RL J. Biol. Chem. 273:18161-18164(1998).
CC -1- FUNCTION: STIMULATES HEPATIC AND INTESTINAL PROLIFERATION.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: MAINLY EXPRESSED IN THE LUNG. NOT DETECTED IN
CC BRAIN, HEART, LIVER, KIDNEY, AND SMALL INTESTINE.
CC -1- DEVELOPMENTAL STAGE: EXPRESSED IN SEVERAL DISCRETE REGIONS AT
CC EMBRYONIC DAYS 14.5 AND 19.5 BUT NOT 10.5. AT E14.5, EXPRESSED IN
CC ISTHUS, PITUITARY, SPINAL CORD, TONGUE, INTERVETBRAL DISK
CC DORSAL ROOT GANGLION AND PELVIS. AT E19.5, EXPRESSED IN LUNG AND
CC ANTERIOR PITUITARY.
CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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CC -----
DR EMBL: AB004638; BAA31979.1; -.
DR HSSP: P31371; I682.
DR InterPro: IPR002209; HB/F-growthfact.
DR InterPro: IPR002348; IL1_HBGF.
DR Pfam: PF00167; FGF_1.
DR PRINTS: PR00262; ILHBGF.
DR PRODOM: PD000831; HB/F-growthfact; 1.
DR SMART: SM00442; FGF; 1. HBGF.
DR PROSITE: PS00247; HBGF_FGF; 1.
KW Growth factor; Signal; Glycoprotein.
FT SIGNAL 1 27 POTENTIAL.
FT CHAIN 28 207 FIBROBLAST GROWTH FACTOR-18.
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 207 AA; 23950 MM; D90EDDVB271628B8 CRC64;

Query Match 98.5%; Score 1081; DB 1; Length 207;
Best Local Similarity 99.0%; Pred. No. 1.3e-94;
Matches 204; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYSPASCTCLCHFLILCFQVOVLVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
DB 1 MYSPASCTCLCHFLILCFQVOVLVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
QY 61 TSGKHIOVLGRISARGEDGDKYAQLIVETDFGSOVRIGKETEFYLCMNRKGLVGR 120
DB 61 TSGKHIOVLGRISARGEDGDKYAQLIVETDFGSOVRIGKETEFYLCMNRKGLVGR 120
QY 121 DGTSGKECVLEKYLENNYALMSAKYSGWVGFTRKGRPKRGTRENOQDVHEMKRYPK 180
DB 121 DGTSGKECVLEKYLENNYALMSAKYSGWVGFTRKGRPKRGTRENOQDVHEMKRYPK 180
QY 121 DGTSGKECVLEKYLENNYALMSAKYSGWVGFTRKGRPKRGTRENOQDVHEMKRYPK 180
DB 121 DGTSGKECVLEKYLENNYALMSAKYSGWVGFTRKGRPKRGTRENOQDVHEMKRYPK 180
QY 181 GPELQKPFKTYTVTKRSRIRPTHP 206
DB 181 GPELQKPFKTYTVTKRSRIRPTHP 206
QY 181 GPELQKPFKTYTVTKRSRIRPTHP 206
DB 181 GPELQKPFKTYTVTKRSRIRPTHP 206

RESULT 4
EGF8_CHICK
ID EGF8_CHICK STANDARD; PRT; 214 AA.
AC 090722;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DE 01-NOV-1997 (Rel. 35, Last annotation update)
DE Fibroblast growth factor-8 precursor (Fgf-8) (HBGF-8).
GN FGF8.
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.
```

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RC STRAIN=White leghorn;
RX MEDLINE=96232288; PubMed=8674413;
RA Vogel A., Rodriguez C., Izpisua-Belmonte J.C.;
RT "Involvement of Fgf-8 in initiation, outgrowth and patterning of the
RT vertebrate limb.";
RL Development 122:1737-1750(1996).
CC -1- FUNCTION: INVOLVED IN INITIATION, OUTGROWTH AND PATTERNING OF THE
CC LIMBS.
CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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CC -----
DR EMBL: U55189; AAB06713.1; -.
DR HSSP: P31371; I682.
DR InterPro: IPR002209; HB/F-growthfact.
DR Pfam: PF00167; FGF_1.
DR PRODOM: PD000831; HB/F-growthfact; 1.
DR SMART: SM00442; FGF; 1.
DR PROSITE: PS00247; HBGF_FGF; 1.
KW Growth factor; Mitogen; Glycoprotein; Signal.
FT SIGNAL 1 22 POTENTIAL.
FT CHAIN 23 214 FIBROBLAST GROWTH FACTOR-8.
FT CARBOHYD 31 31 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 207 207 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 214 AA; 24806 MM; BE5FA3CD13A2BC34 CRC64;

Query Match 52.3%; Score 574; DB 1; Length 214;
Best Local Similarity 56.4%; Pred. No. 6.5e-47;
Matches 110; Conservative 33; Mismatches 46; Indels 6; Gaps 3;

QY 13 LHFLILCFQVOVLVAEENVDFRIHVENOTRARDVSRKQLRYOLYSTSGKHIOVLGR 71
DB 13 LHFLILCFQVOVLVAEENVDFRIHVENOTRARDVSRKQLRYOLYSTSGKHIOVLGR 71
QY 72 RISARGEDGDKYAQLIVETDFGSOVRIGKETEFYLCMNRKGLVGRPKDTSKECVFIE 131
DB 72 KINMAEDGDVHAFLIYETDFGSRVIRIKGATGFYICMNRKGLVGRPKDTSKECVFIE 131
QY 132 KYLENNYALMSAKYSGWVGFTRKGRPKRGTRENOQDVHEMKRYPK---QPELQK 187
DB 132 KYLENNYALMSAKYSGWVGFTRKGRPKRGTRENOQDVHEMKRYPK---QPELQK 187
QY 132 IYLENNYALMSAKYSGWVGFTRKGRPKRGTRENOQDVHEMKRYPK---QPELQK 187
DB 132 IYLENNYALMSAKYSGWVGFTRKGRPKRGTRENOQDVHEMKRYPK---QPELQK 187
QY 188 PFKTYTVTKRSRIR 202
DB 188 PFKTYTVTKRSRIR 202
QY 192 EFLNYPNRSKRTR 206
DB 192 EFLNYPNRSKRTR 206

RESULT 5
EGF8_HUMAN
ID EGF8_HUMAN STANDARD; PRT; 216 AA.
AC 060258;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 15-JUN-2002 (Rel. 41, Last annotation update)
DE Fibroblast growth factor-17 precursor (Fgf-17).
GN FGF17.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC Tissue=Fetal brain;
RX MEDLINE=98183421; PubMed=9514906;
RA Hoshikawa M., Ohbayashi N., Yonamine A., Konishi M., Ozaki K.,
RA Fukui S., Itoh N.;
```

RT "Structure and expression of a novel fibroblast growth factor, FGF-17,
 RT preferentially expressed in the embryonic brain."
 RL Biochem. Biophys. Res. Commun. 244:187-191(1998).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA Rieder M.J., Braun A.C., Montoya M.A., Chung M.-W., Nguyen C.P.,
 RA Nguyen D.A., Livingston R.J., Poel C.L., Robertson P.D.,
 RA Schackwitz W.S., Sherwood J.K., Wiltrak L.A., Nickerson D.A.;
 RL Submitted (MAR-2002) to the EMBL/GenBank/DBJ databases.
 CC -1- FUNCTION: MAY BE A SIGNALING MOLECULE IN THE INDUCTION AND
 CC PATTERNING OF THE EMBRYONIC BRAIN.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: PREFERENTIALLY EXPRESSED IN THE EMBRYONIC
 CC BRAIN.
 CC -1- DEVELOPMENTAL STAGE: DETECTED IN EMBRYOS AT E14.5, BUT NOT AT
 CC E10.5 AND E19.5. PREFERENTIALLY EXPRESSED IN THE NEUROEPITHELIA OF
 CC THE ISTHMUS AND SEPTUM OF THE EMBRYONIC BRAIN AT E14.5.
 CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
 CC -----
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 CC -----
 CC DR EMBL: AB009249; BAA25429.1; -
 CC DR EMBL: AF497475; AAM09570.1; -
 CC DR HSSP: P31371; 1G82.
 CC DR Genew: HGNC:3673; FGF17.
 CC DR MIM: 603725; -
 CC DR InterPro: IPR002209; HB/F_growthfact.
 CC DR InterPro: IPR002348; IIL_HBGF.
 CC DR Pfam: PF00167; FGF; 1.
 CC DR PRINTS: PR00262; IILHBGF.
 CC DR PRODOM: PD000831; HB/F_growthfact; 1.
 CC DR SMART: SM00442; FGF; 1.
 CC DR PROSITE: PS00247; HBGF_FGF; 1.
 CC DR Growth factor: Signal.
 CC FT SIGNAL 1 22 POTENTIAL.
 CC FT CHAIN 23 216 FIBROBLAST GROWTH FACTOR-17.
 CC FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
 CC SQ SEQUENCE 216 AA; 24891 MW; 2EE02886/5220F4C CRC64;
 CC
 CC Query Match 52.1%; Score 571; DB 1; Length 216;
 CC Best Local Similarity 54.1%; Pred. No. 1.3e-46;
 CC Matches 112; Conservative 38; Mismatches 39; Indels 18; Gaps 4;
 CC
 CC QY 11 LCLHFLLCFOYVVAEEN---VDFRIHVENOTRARDVSRKQLRLYLQYSRTSGKHIO 67
 CC DB 12 LCLQLLILCCQYQ---GENHSPNPNQYVRDQAMTQDLSRQIRREYQVLSRTSGKHVQ 67
 CC QY 68 VLGRISARGEGDKYAOVLVETDFFGSOVRIKKGKETEFLYLCMNRKGLVKGPDGSKKC 127
 CC DB 68 VIGRRISARAEQGNKFAKLIVETDFFGSRVRIKGAESEYICMNRKGLIGRPSGSKDC 127
 CC QY 128 VIEKLENNYATLMSAKISGMYVGFTRKGRPKGPKTRENODVHFMRPKYQ----- 182
 CC DB 128 VTEIYLENNYATAFQNAHREGWFMFTROGRPROASRSRQNRQREAHFIRKLQGLPPFN 187
 CC QY 183 -PELOKPFKY-----TIVTKRSRIRP 203
 CC DB 188 HAERKQFEFVGSAPTRRTKRRRPP 214
 CC
 CC RESULT 6
 CC EGFH_MOUSE STANDARD; PRT; 216 AA.
 CC ID EGFH_MOUSE 070627;
 CC DT 15-JUL-1999 (Rel. 38, Created)
 CC DT 15-JUL-1999 (Rel. 38, Last sequence update)
 CC DT 16-OCT-2001 (Rel. 40, Last annotation update)

DE Fibroblast growth factor-17 precursor (FGF-17).
 GN FGF17.
 OS Mus musculus (Mouse), and
 OS Rattus norvegicus (Rat).
 OS Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090, 10116;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA STRAIN=Wistar; TISSUE=Embryo;
 RX MEDLINE=98183421; PubMed=9514906;
 RA Hoshioka M., Ohbayashi N., Yonamine A., Konishi M., Ozaki K.,
 RA Fukui S., Itoh N.;
 RT "Structure and expression of a novel fibroblast growth factor, FGF-17,
 RT preferentially expressed in the embryonic brain."
 RL Biochem. Biophys. Res. Commun. 244:187-191(1998).
 CC -1- FUNCTION: MAY BE A SIGNALING MOLECULE IN THE INDUCTION AND
 CC PATTERNING OF THE EMBRYONIC BRAIN.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: EXPRESSED IN EMBRYONIC BRAIN, MOSTLY IN THE
 CC ISTHMUS CEREBELLAR NEUROEPITHELIUM AND SEPTUM NEUROEPITHELIUM, AND
 CC IN ALL ADULT TISSUES.
 CC -1- DEVELOPMENTAL STAGE: IN RAT, EXPRESSED AT HIGH LEVEL IN THE BRAIN
 CC EMBRYO AT E14.5. EXPRESSED AT LOWER LEVEL IN THE BRAIN EMBRYO AT
 CC E10.5 AND E19.5.
 CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
 CC -----
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 CC -----
 CC DR EMBL: AB009250; BAA25430.1; -
 CC DR EMBL: AB008682; BAA25426.1; -
 CC DR HSSP: P31371; 1G82.
 CC DR MGI: 1202401; Fgf17.
 CC DR InterPro: IPR002209; HB/F_growthfact.
 CC DR InterPro: IPR002348; IIL_HBGF.
 CC DR Pfam: PF00167; FGF; 1.
 CC DR PRINTS: PR00262; IILHBGF.
 CC DR PRODOM: PD000831; HB/F_growthfact; 1.
 CC DR SMART: SM00442; FGF; 1.
 CC DR PROSITE: PS00247; HBGF_FGF; 1.
 CC DR Growth factor: Signal.
 CC FT SIGNAL 1 22 POTENTIAL.
 CC FT CHAIN 23 216 FIBROBLAST GROWTH FACTOR-17.
 CC FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
 CC SQ SEQUENCE 216 AA; 24924 MW; 2EE94BDF/5220F4C CRC64;
 CC
 CC Query Match 51.6%; Score 566; DB 1; Length 216;
 CC Best Local Similarity 54.4%; Pred. No. 3.7e-46;
 CC Matches 111; Conservative 37; Mismatches 38; Indels 18; Gaps 4;
 CC
 CC QY 11 LCLHFLLCFOYVVAEEN---VDFRIHVENOTRARDVSRKQLRLYLQYSRTSGKHIO 67
 CC DB 12 LCLQLLILCCQYQ---GENHSPNPNQYVRDQAMTQDLSRQIRREYQVLSRTSGKHVQ 67
 CC QY 68 VLGRISARGEGDKYAOVLVETDFFGSOVRIKKGKETEFLYLCMNRKGLVKGPDGSKKC 127
 CC DB 68 VIGRRISARAEQGNKFAKLIVETDFFGSRVRIKGAESEYICMNRKGLIGRPSGSKDC 127
 CC QY 128 VIEKLENNYATLMSAKISGMYVGFTRKGRPKGPKTRENODVHFMRPKYQ----- 182
 CC DB 128 VTEIYLENNYATAFQNAHREGWFMFTROGRPROASRSRQNRQREAHFIRKLQGLPPFN 187
 CC QY 183 -PELOKPFKY-----TIVTKRSRIRP 200
 CC DB 188 HAERKQFEFVGSAPTRRTKRRR 211

```
RESULT 7
FGF8_HUMAN          STANDARD;          PRT;          233 AA.
AC   P55075; O14915; O15766;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Androgen-induced growth factor precursor (AIGF) (HBGF-8) (Fibroblast
DE   growth factor-8) (FGF-8).
GN   FGF8 OR AIGF.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX   NCBI_TaxId=9606;
RN   [1]
RP   TISSUE=Prostate;
RA   Ghosh A.K., Shankar D.B., Shackelford G.M., Miller G., Zheng J.,
RA   MacArthur C.A., Roy-Burman P.;
RL   Submitted (FEB-1996) to the EMBL/GenBank/DBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A. (FGF-8A).
RX   MEDLINE=9525551; PubMed=7737407;
RA   Tanaka A., Miyamoto K., Matsuo H., Matsumoto K., Yoshida H.;
RT   "Human androgen-induced growth factor in prostate and breast cancer
RT   cells: its molecular cloning and growth properties.";
RL   FEBS Lett. 363:226-230(1995).
RN   [3]
RP   SEQUENCE FROM N.A. (FGF-8A).
RA   Payson R.A., Wu J., Liu Y., Chiu I.M.;
RL   Submitted (JAN-1996) to the EMBL/GenBank/DBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
RX   TISSUE=Placenta;
RX   MEDLINE=9629767; PubMed=8661131;
RT   Gemel J., Gorry M., Ehrlich G.D., MacArthur C.A.;
RT   "Structure and sequence of human FGF8.";
RL   Genomics 35:253-257(1996).
RN   [5]
RP   SEQUENCE FROM N.A.
RA   Tanaka S.;
RL   Submitted (MAY-1998) to the EMBL/GenBank/DBJ databases.
RN   [6]
RP   SEQUENCE OF 1-11 FROM N.A.
RX   MEDLINE=96292226; PubMed=8700553;
RT   Payson R.A., Wu J., Liu Y., Chiu I.-M.;
RT   "The human FGF-8 gene localizes on chromosome 10q24 and is subjected
RT   to induction by androgen in breast cancer cells.";
RL   Oncogene 13:47-53(1996).
CC   -1- FUNCTION: STIMULATES GROWTH OF THE CELLS IN AN AUTOCRINE MANNER.
CC   -1- ALTERNATIVE PRODUCTS: AT LEAST 4 ISOFORMS: FGF-8A, FGF-8B, FGF-8F
CC   AND FGF-8E (SHOWN HERE); ARE PRODUCED BY ALTERNATIVE SPLICING.
CC   -1- DEVELOPMENTAL STAGE: IN ADULTS EXPRESSION IS RESTRICTED TO THE
CC   GONADS.
CC   -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC   -----
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   -----
DR   EMBL; U46213; AAB40955.1; -
DR   EMBL; U46212; AAB40954.1; -
DR   EMBL; U46211; AAB40953.1; -
DR   EMBL; S78466; AAB34255.1; -
DR   EMBL; S78462; AAB34255.1; JOINED.
DR   EMBL; S78463; AAB34255.1; JOINED.
DR   EMBL; S78464; AAB34255.1; JOINED.
DR   EMBL; S78465; AAB34255.1; JOINED.
```

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DR   EMBL; D38752; BAA22527.1; -
DR   EMBL; U36223; AAB17893.1; -
DR   EMBL; U36228; AAB17894.1; -
DR   EMBL; U36225; AAB17894.1; JOINED.
DR   EMBL; U36226; AAB17894.1; JOINED.
DR   EMBL; U36227; AAB17894.1; JOINED.
DR   EMBL; U47011; AAC50783.1; -
DR   EMBL; U47009; AAC50783.1; JOINED.
DR   EMBL; U47010; AAC50783.1; JOINED.
DR   EMBL; U47011; AAC50784.1; -
DR   EMBL; U47009; AAC50784.1; JOINED.
DR   EMBL; U47010; AAC50784.1; JOINED.
DR   EMBL; U47011; AAC50785.1; -
DR   EMBL; U47009; AAC50785.1; JOINED.
DR   EMBL; U47010; AAC50785.1; JOINED.
DR   EMBL; U47011; AAC50782.1; -
DR   EMBL; U47009; AAC50782.1; JOINED.
DR   EMBL; U47010; AAC50782.1; JOINED.
DR   EMBL; AB014615; BAA28605.1; -
DR   EMBL; U56978; AAB03787.1; -
DR   HSSP; P31371; 1G82
DR   Genew; HGNC:3686; FGF8.
DR   MIM; 600483; -
DR   InterPro; IPR002209; HB/F_growthfact.
DR   Pfam; PF00167; FGF; 1.
DR   ProDom; PD000831; HB/F_growthfact; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Growth factor; Mitogen; Alternative splicing; Signal.
FT   SIGNAL 1 22
FT   CHAIN 23 233
FT   CARBOHYD 155 155
FT   VARSPIC 24 51
FT   VARSPIC 24 52
FT   VARSPIC 52 52
FT   VARSPIC 52 52
FT   SEQUENCE 233 AA; 26525 MW; 4C1EAF932A3A211D CRC64;
Query Match 51.68; Score 566; DB 1; Length 233;
Best Local Similarity 53.18; Pred. No. 4e-46;
Matches 111; Conservative 32; Mismatches 48; Indels 18; Gaps 3;
QY 1 MYSAPACTGCLCHFLIFCFQYQ-----VIVAEENVDERI-----HYENQTRA 43
DB 1 MGSPRSALSCLLHLHLVLVLCQADGCGRGPALGRELASLPAGRPGCVSQQHVREDSLV 60
QY 44 RDVSRKQLLYOLYSTRSGKHQIVL-CGRISARGEDGDXYAOLVETDFGSGVRIKJK 102
DB 61 TDQLSRLLRITYQLYSTRSGKHQIVLANKRINMAAEQGDPEFAKIVETDFGSRVRYRGA 120
QY 103 ETEFYLCMNKRGKLVGKPDGTSKECVIEKYLENNYTAALMSAKYSGWYVGFTKGRRPKG 162
DB 121 ETGYLCIMNKKGKLIASNGKGDVETYLENNYTAALONAKYEGWYMAFTKRGRRPKG 180
QY 163 PRTRENOQDVHFMRKRYKGPDELQKPRKY 191
DB 181 SKTRQHQREVFHMKRILPRGHHTTEQSLRF 209
RESULT 8
FGF8_MOUSE          STANDARD;          PRT;          268 AA.
AC   P37237;
DT   01-OCT-1994 (Rel. 30, Created)
DT   01-OCT-1994 (Rel. 30, Last sequence update)
DT   15-JUN-2002 (Rel. 41, Last annotation update)
DE   Androgen-induced growth factor precursor (AIGF) (HBGF-8) (Fibroblast
DE   growth factor-8) (FGF-8).
GN   FGF8 OR AIGF.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathia; Muridae; Murinae; Mus.
OX   NCBI_TaxId=10090;
```

RN [1] SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RP MEDLINE=93028380; PubMed=1409588;
 RA Tanaka A., Miyamoto K., Minamino N., Takeda M., Sato B., Matsuo H.,
 RA Matsumoto K.;
 RT "Cloning and characterization of an androgen-induced growth factor
 RT essential for the androgen-dependent growth of mouse mammary
 RT carcinoma cells.";
 RL Proc. Natl. Acad. Sci. U.S.A. 89:8928-8932(1992).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Breast Carcinoma;
 RX MEDLINE=95191029; PubMed=7884899;
 RA MacArthur C.A., Shankar D.B., Shackelford G.M.;
 RT "Fgf-8, activated by proviral insertion, cooperates with the Wnt-1
 RT transgene in murine mammary tumorigenesis.";
 RL J. Virol. 69:2501-2507(1995).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=96082880; PubMed=7583127;
 RA Mahmood R., Bresnick J., Hornbruch A., Mahony C., Morton N.,
 RA Colquhoun K., Martin P., Lumsden A., Dickson C., Mason I.;
 RT "A role for FGF-8 in the initiation and maintenance of vertebrate
 RT limb bud outgrowth.";
 RL Curr. Biol. 5:797-806(1995).
 CC -1- FUNCTION: STIMULATES GROWTH OF THE CELLS IN AN AUTOCRINE MANNER.
 CC MEDATES HORMONAL ACTION ON THE GROWTH OF CANCER CELLS. COOPERATES
 CC WITH WNT-1 IN MOUSE MAMMARY TUMOR VIRUS-INDUCED MURINE MAMMARY
 CC TUMORIGENESIS.
 CC -1- ALTERNATIVE PRODUCTS: AT LEAST 3 ISOFORMS: FGF-8C (SHOWN HERE),
 CC FGF-8B AND FGF-8A; ARE PRODUCED BY ALTERNATIVE SPLICING.
 CC -1- TISSUE SPECIFICITY: ABSENT IN NORMAL MAMMARY GLANDS AND DETECTED
 CC ONLY IN ADULT TESTES AND OVARY AND IN MIDGASTROINTESTINAL EMBRYOS.
 CC -1- INDUCTION: BY ANDROGENS.
 CC -1- PTM: THE N-TERMINUS IS BLOCKED.
 CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
 CC
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 CC
 DR EMBL: D12483; BAA02051.1; -
 DR EMBL: D12482; BAA02050.1; -
 DR EMBL: D18673; AAA65387.1; -
 DR EMBL: Z48746; CAA88637.1; -
 DR HSSP: P31371; 1G82
 DR MGD: MGI:99604; Fgf8.
 DR Interpro: IPR002209; HB/F-growthfact.
 DR Pfam: PF00167; FGF, 1.
 DR Prodom: PD000831; HB/F-growthfact; 1.
 DR SMART: SM00442; FGF, 1
 DR PROSITE: PS00247; HBGF_FGF, 1.
 KW Growth factor; Mitogen; Alternative splicing; signal.
 FT SIGNAL 1 22
 FT CHAIN 23 268
 FT MOD_RES 23 23 ANDROGEN-INDUCED GROWTH FACTOR.
 FT CARBOHYD 60 60 PYRROLIDONE CARBOXYLIC ACID (POTENTIAL).
 FT CARBOHYD 190 190 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT VARSPLIC 24 87 VRSAAQKRGPGAGNPADTLTGQGHDEHPFGQSRAGKNTNP
 FT (IN ISOFORM FGF-8B).
 FT APNYPEGSKEDQSDVLPKVTOR -> VYVSSPNPTQ
 FT (IN ISOFORM FGF-8A).
 FT MISSING (IN ISOFORM FGF-8A).
 FT VARSPLIC 24 87
 FT SEQUENCE 268 AA: 30419 MW: 3330A9F5342AD7109 CRC64;
 QY Query Match 50.5%; Score 554.5; DB 1; Length 268;
 Best Local Similarity 45.5%; Pred. No. 5,8e-45;
 Matches 111; Conservative 34; Mismatches 46; Indels 53; Gaps 3;
 QY 1 MTSAPACYCLCHLHLLLCFQVQVLA-----EENVD----- 33

Db 1 MGSPRSALSCILLHLVLICLAQVRSAAOKRPGAGNPADTLTGQGHDEHPFGQSRAGKN 60
 QY 34 -----RHVENQTAARDVSRKQRLVQLYSRSGKIIQV 68
 Db 61 FTNPAPNYPEGSKEDQSDVLPKVTORHVRQSLVTLQSLNRLLRTQLYSRSGKIIQV 120
 QY 69 LGRISARGEDGDKYQALLVETDTPGSOYRIKKEFEFLCMNRKGLVGPDPGTSKEC 127
 Db 121 LANKRIAMAMEDGDPFAKLIVETDTPGSRVRAETGLICMNRKGLVLAASKGKDC 180
 QY 128 VLEIKVLNNYVTLMSAKYSGWYGVETKGRPKRKYPTRENQDVFHMKRYPKGQPELQK 187
 Db 181 VFTEIVLNNYVTLQNAKYGWYAFTRKGRPKRKYPTROHREHFMKRLRPHHTTEQ 240
 QY 188 PFXY 191
 Db 241 SLRF 244
 RESULT 9
 FGF7_HUMAN
 ID FGF7_HUMAN STANDARD; PRT; 194 AA.
 AC P21781;
 DT 01-MAY-1991 (Rel. 18, Created)
 DT 01-MAY-1991 (Rel. 18, Last sequence update)
 DT 15-JUN-2002 (Rel. 41, Last annotation update)
 DE Keratinocyte growth factor precursor (KGF) (fibroblast growth factor-
 DE 7) (FGF-7) (HBGF-7).
 GN FGF7 OR KGF.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
 OX NCBI_Taxid:9606;
 RN [1]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 32-50.
 RX MEDLINE=89368897; PubMed=2475908;
 RA Finch P.W., Rubin J.S., Miki T., Ron D., Aaronson S.A.;
 RT "Human KGF is FGF-related with properties of a paracrine effector of
 RT epithelial cell growth.";
 RL Science 245:752-755(1989).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=92152720; PubMed=1664700;
 RA Aaronson S.A., Bottaro D.P., Miki T., Ron D., Finch P.W.,
 RA Fleming T.P., Ahn J., Taylor W.G., Rubin J.S.;
 RT "Keratinocyte growth factor. A fibroblast growth factor family member
 RT with unusual target cell specificity.";
 RL Ann. N.Y. Acad. Sci. 638:62-77(1991).
 RN [3]
 RP SEQUENCE OF 32-44.
 RX MEDLINE=89128865; PubMed=2915979;
 RA Rubin J.S., Osada H., Finch P.W., Taylor W.G., Rudikoff S.,
 RA Aaronson S.A.;
 RT "Purification and characterization of a newly identified growth
 RT factor specific for epithelial cells.";
 RL Proc. Natl. Acad. Sci. U.S.A. 86:802-806(1989).
 CC -1- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE
 CC MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
 CC -1- SUBCELLULAR LOCATION: Secreted.
 CC -1- TISSUE SPECIFICITY: EPITHELIAL CELL.
 CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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 CC
 DR EMBL: M60828; AAA63210.1; -
 DR EMBL: S81661; AAB21431.1; -

[illegible]

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CC
DR EMBL; Z22703; CAA80430.1; -.
DR EMBL; U58503; AAB01343.1; -.
DR PIR; S33227; S33227.
DR HSSP; P31371; IG82.
DR MGD; MG1:95521; Fgf7.
DR InterPro; IPR002209; HB/F-growthfact.
DR InterPro; IPR002348; ILI_HBGF.
DR Pfam; PF00167; FGF_1.
DR PRINTS; PR00262; ILIHGFGF.
DR PRODOM; PD000831; HB/F-growthfact; 1.
DR SMART; SM00442; FGF_1.
DR PROSITE; PS00247; HBGF_FGF_1.
KW Growth factor; Mitogen; Signal.
FT SIGNAL 1 31 BY SIMILARITY.
FT CHAIN 32 194 KERATINOCYTE GROWTH FACTOR.
FT CARBOHYD 45 45 N-LINKED (GLCNAC...)(POTENTIAL).
SQ SEQUENCE 194 AA; 22347 MW; 805C30DB4BD27C73 CRC64;

Query Match          17.6%; Score 193; DB 1; Length 194;
Best Local Similarity 35.8%; Pred. No. 4e-11;
Matches   53; Conservative    26; Mismatches    51; Indels    18; Gaps     6;
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```
OY      38 ENQRRADVSRKKQLRLYLQYSRTSGKHIIQVLGRISARG-----EDGDKYAQLLVETPD 91
           | :|::|| :: ||:||:|||||         ||| ||             |:| ::| 
Db       50 ERHRSYDMGGAGDIRVLRFLRCFRGTOMW-----LRIDRKGVKVGTOEMKNNSYNIMEIRTV 103
OY      92 TFGSVVRKRKGCTEPEYYLCMNRKGI VGRPDSKSQCVELNLYENNRYALMSAK--YG- 148
           | -|-||:-||::||| ||::|||::| :-::|:-||::| |||::| 
Db      104 AVGI-VALKGESEVEYYLAMNKREKLYARK-CNECDNFKEILLENNHTYTASAKWTSHSGG 161
OY      149 -WYVFETKRGPRRKPPTRENODVHFPM 175
           | :| ::||| ||| ||||| :| ::| 
Db      162 EMPVALNQKGPVPVKGTKTKKCKTAHFL 189

RESULT 11
FGF7_SHEEP
ID      FGF7_SHEEP        STANDARD;                PTR;      194 AA.
AC      PA4808;
DT      01-FEB-1996 (Rel. 33, Created)
DT      01-FEB-1996 (Rel. 33, Last sequence update)
DT      01-NOV-1997 (Rel. 35, Last annotation update)
DE      Keratinocyte growth factor precursor (KGF) (Fibroblast growth factor-
      7) (PCF-?) (HBGF-?).
GN      FGF7 OR PCF??.
OS      Ovis aries (Sheep).
OC      Eukaryotes; Metacoata; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mamalia; Euarchia; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC      Bovidae; Caprinae; Ovls.
OX      NCBI_Taxid=9940;
RN      [1]
RP      MITCHELL J.E.A.; McInnes C.J.;
RA      Submitted (Oct-1994) to the EMBL/Genebank/DDBJ databases.
CC      FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOcyTES. POSSIBLE
CC      MAJOR PARACINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
CC      -1- SIMILIARTY: BELONGS TO THE HEPAIIN-BINDING GROWTH FACTORS FAMILY.
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DR EMBL; Z46236; CAA86306.1; -.
DR HSSP; P31371; IG82.
DR InterPro; IPR002209; HB/F-growthfact.
DR InterPro; IPR002348; ILI_HBGF.
DR Pfam; PF00167; FGF_1.
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CC -----
DR EMBL: AJ010553: CAA09234.1; -.
DR HSSP: U00048: AAB53825.2; -.
DR HSSP: P31371: 1G82.
DR WormPep: C05D11.4: CE24786.
DR InterPro: IPR002209: HB/F_growthfact.
DR Pfam: PF00167: FGF, 1.
DR ProDom: PD000831: HB/F_growthfact; 1.
DR SMART: SM00442; FGF, 1.
DR PROSITE: PS00247; HBGF_FGF; FALSE_NEG.
DR Developmental protein; Growth factor.
FT DOMAIN 322 328 POLY-GLN.
FT DOMAIN 381 387 POLY-HIS.
FT DOMAIN 391 394 POLY-SER.
SO SEQUENCE 425 AA; 49569 MW; E04A5A2D94F044D2 CRC64;

Query Match 17.3%; Score 190; DB 1; Length 425;
Best Local Similarity 28.2%; Pred. No. 1.9e-10;
Matches 61; Conservative 31; Mismatches 62; Indels 62; Gaps 11;

QY 44 RDVYSRKQL-----RLYLYSRTSGKHLYVL-----GRISARG--ED 79
DB 49 RVDRIKRLQDEENGYPADRRRGAFCR-SGTWLEMLPIENDDGSTFVKVHGTKEE 107
QY 80 GDKYAQLIVE-TDFGSOVRIRKGETEFYLCMNRKGLVGPDGT-SKECVFEKYLENN 137
DB 108 SSKS--IVERVYVAMSLVSRIGVETKMFICMDPSGLYATPSSNYSTECVLEEMENY 165
QY 138 YTALMSAKY---SGWYVGFTKRGPRKPKPTRENOOVHFM-----KRPYKRG-- 181
DB 166 YNLVASCAYGDRFNPWYIELRSRSGKPRRPSKRRKRAKSHPLVYVHDDLRLRSVPNGND 225
QY 182 -----QPELOKPFKTTYTKRSRRIRPTHP 206
DB 226 VTDLVASLPHPPSHPLFRQTYTK-----PPNP 255

RESULT 14
FGF7_PIG STANDARD; PRT; 194 AA.
AC Q9N196;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-JUN-2002 (Rel. 41, Last annotation update)
DE Keratinocyte growth factor precursor (KGF) (Fibroblast growth factor-
DE 7) (Fgf-7) (HBGF-7).
GN FGF7.
OC Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suidae; Sus.
OX NCBI_TaxID=9823;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Endometrium;
RX MEDLINE=20297022; PubMed=10819782;
RA Ka H., Spencer T.E., Johnson G.A., Bazer F.W.;
RT "Keratinocyte growth factor: expression by endometrial epithelia of
RT the porcine uterus.";
RU Biol. Reprod. 62:1772-1778(2000).
CC -!- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE MAJOR
CC PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION (BY
CC SIMILARITY).
CC -!- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC -----
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DR EMBL: AF217463: AAF26734.1; -.
DR HSSP: P31371: 1G82.
DR InterPro: IPR002209: HB/F_growthfact.
DR InterPro: IPR002348; IL1_HBGF.
DR Pfam: PF00167: FGF, 1.
DR PRINTS: PR00262; IL1HBGF.
DR ProDom: PD000831: HB/F_growthfact; 1.
DR SMART: SM00442; FGF, 1.
DR PROSITE: PS00247; HBGF_FGF; 1.
DR Growth factor; Mitogen; Signal.
FT SIGNAL 1 31
FT CHAIN 32 194
FT CARBOHYD 45 45 N-LINKED (GLYCAC... ) (POTENTIAL).
SO SEQUENCE 194 AA; 22463 MW; BA44B5B45A731B0 CRC64;

Query Match 17.2%; Score 188.5; DB 1; Length 194;
Best Local Similarity 31.2%; Pred. No. 1.1e-10;
Matches 55; Conservative 34; Mismatches 64; Indels 23; Gaps 7;

QY 19 CFQYQVLYAERNVDF-----IIVENOTRARDVSKRQLRLYLYSRTSGKH 65
DB 18 CFHICLVGLSLDCNDMTPEOMATNVNCSPEPRTNRYDMEGGDIRVRLFCPT--QW 75
QY 66 IQVGRIRISARG--EDGKYAQLIVEFTDFGSOVRIRKGETEFYLCMNRKGLVGPDGT 123
DB 76 YPRIGKRRKVKVGTQEMKNYINMEIRYVAAGI-VAIKVSEYIYLAAMKEGLYAKKE-Y 133
QY 124 SKECVFEKYLENNYTALMSAK--YSG--VWYVGFTKRGPRKPKPTRENOOVHFM 175
DB 134 NEDCNFKELILENNHYNTVASAKWTHSGGEMVALNOKGVPRGKTKKQKTAHFL 189

RESULT 15
FGF7_RAT STANDARD; PRT; 194 AA.
AC Q02195;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Keratinocyte growth factor precursor (KGF) (Fibroblast growth factor-
DE 7) (Fgf-7) (HBGF-7).
GN FGF7 OR FGF-7 OR KGF.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=91331931; PubMed=1869483;
RA Van G., Nikolopoulos S., Wang F., McKeenan W.L.;
RT "Sequence of rat keratinocyte growth factor (heparin-binding growth
RT factor type 7)".;
RU In Vitro Cell. Dev. Biol. 27A:437-438(1991).
CC -!- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE
CC MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
CC -!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC -----
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DR	PROSITE; PS00247; HBGF_FGF; 1.
KW	Growth factor; Mitogen; Signal.
FT	SIGNAL
FT	1 31
FT	CHARIN
FT	32 194
FT	CARBOHYD
FT	45 145
FT	CARBOHYD
FT	149 149
SO	SEQUENCE
	194 AA; 22268 MW; 5242CDAC305CC8C1 CR664;